

# Radionuclide Techniques In Medicine

## 14. Radionuclide techniques in haematology

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### 1. INTRODUCTION

Radionuclide methods have been part of the diagnostic armament of clinical haematologist for many years. Radioactive tracers can be bound to plasma proteins and blood cells to study the dynamics of haematopoiesis, of iron metabolism, and of destruction of blood cells. Reliable quantitative information may be obtained on plasma and red cell volume. Modern techniques also enable imaging of the sites of blood production, storage and destruction, and may assist in localizing malignant cell proliferation and sites of infection. Sophisticated kinetic studies using radioiron have dramatically broadened our knowledge on erythropoiesis and iron metabolism, both in normal and pathological conditions. Some of the methods developed through the years have proven their value in clinical practice. Others remain research tools and continue, in specialized hands, to extend our knowledge on the pathophysiology of blood. Many methods, of value in the early days of nuclear medicine, are obsolete now and have been replaced by newer, faster, safer or more accurate techniques. From the abundance of radioisotope methods in haematology a personal choice was made. For reasons of clearness most techniques of historical importance have been omitted. Also elaborative methods that offer no marked advantage over those described are omitted. Recent recommendations of ICSH (International Committee for Standardization in Haematology) panels on diagnostic application of radioisotopes in haematology are followed.

This chapter should serve as a practical guide for the clinician who uses radionuclide techniques to solve haematological problems. Commonly used techniques are discussed in some detail with practical guidelines for labeling of blood cells and plasma proteins, handling of labeled products, and for necessary, if simple, calculations. Methods, mainly or exclusively used for research purpose are omitted or briefly discussed only.

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Radionuclide Techniques in Medicine Articles from Journal of the Royal Society of Medicine are provided here courtesy of Royal Society of Medicine Press. In Vitro Radionuclide Techniques in Medical Diagnosis. Diagnostic techniques in nuclear medicine use radioactive tracers which emit gamma A positron-emitting radionuclide is introduced, usually by injection, and . Previous article in issue: Proceedings of a Symposium on Quality Assurance of Radiotherapy Equipment edited by G. Starkschall. Previous article in issue. American Association of Physicists in Medicine. Close Radionuclide Techniques in Medicine, by J. McAlister. Radionuclide methods have been part of the diagnostic armament of clinical haematologist Nuclear Techniques in Diagnostic Medicine pp Cite as. Nuclear medicine is a medical specialty involving the application of radioactive substances in There are several techniques of diagnostic nuclear medicine. 2D : Scintigraphy ("scint") is the use of internal radionuclides to create. 3: Radionuclide Techniques in Medicine (Techniques of Measurement in Medicine Series): Medicine & Health Science Books @ lemeilleurnettoyantducolon.com A radionuclide scan (also known as a radioisotope scan) is an imaging technique used to visualise parts of the body by injecting a small dose of a radioactive. Radionuclide Techniques in Clinical Investigation. Kenny, Peter J. Ph.D. Clinical Nuclear Medicine: September - Volume 9 - Issue 9 - ppg A variety of hematologic studies using radionuclides are suitable for use in The new use of nuclear medicine techniques in pediatric hematology permits the. Chapter. from book Nuclear Techniques in Diagnostic Medicine (pp) Radionuclide methods have been part of the diagnostic armament of clinical. Available in the National Library of Australia collection. Author: McAlister, Joan M; Format: Book; p. ; 24 cm. Determination of absolute cardiac ventricular volume using radionuclide techniques. B F Hutton, G J Bautovich and J Cormack. Physics in Medicine & Biology. Basic Physics of Nuclear Medicine is a featured book on Wikibooks because it Radionuclide Techniques in Medicine, JM McAlister (Cambridge University. Nuclear Medicine. Evaluation of Sacro-iliitis: Comparison of Radiological and Radionuclide Techniques. J. Dequeker,; T. Goddeeris.

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